

**Let Redsense help keep an eye
on your venous needles**



Train the trainer

RM-1-RM009

May 2010

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on your venous needles**



Intended use Home/Self use - US

The Redsense device is intended to monitor for potential blood loss from the hemodialysis access site in hemodialysis patients undergoing hemodialysis treatment up to 5 hours at home or in the clinical setting.

The device includes a blood sensor incorporated into an adhesive dressing. The sensor monitors potential blood leakage from the needle puncture via an infrared light and will alarm if needle dislodgement or blood leakage is detected.

All use must be administered under physician's prescription, and must be observed by a trained and qualified person considered to be competent in the use of this device by the prescribing physician.



Intended use Clinic use - US

The Redsense device is intended to monitor for potential blood loss from the hemodialysis access site in hemodialysis patients undergoing continuous hemodialysis treatment up to 5 hours in the clinical setting.

The device includes a blood sensor incorporated into an adhesive sensor patch. The sensor monitors potential blood leakage from the venous needle puncture site via an infrared light and will alarm if blood leakage is detected via absorption onto the device's sensor patch.

Warnings and Precautions

- Read and follow all instructions for use carefully.
- Redsense must be used only for its intended purpose and in accordance with the instructions for use. All other use is not allowed.
- The device should not be relied upon as the sole monitor for blood loss/needle disconnection at the vascular access site.
- The device must only be attached to the patient as shown in instruction for use and the user manual.

Why Redsense?





[Click on the picture to start the movie](#)

A false sense of security

" Under favorable circumstances, the venous pressure will drop when a leak in the system occurs. The monitor will **not** alarm - - - (if) the venous pressure alarm limit is not properly set - - - and even with properly set alarm limits, the monitor may not alarm"

*(From "Neglected Safety Aspects in Hemodialysis Machines and Their Related Problems",
H-D Polaschegg, PhD, Hemodialys Horizons 2006.)*

The first clinically tested...

“Blood loss resulting from disconnection of the venous needle during hemodialysis is a potentially serious event.

Redsense has developed an ingenious device to provide prompt warning when this adverse event occurs”

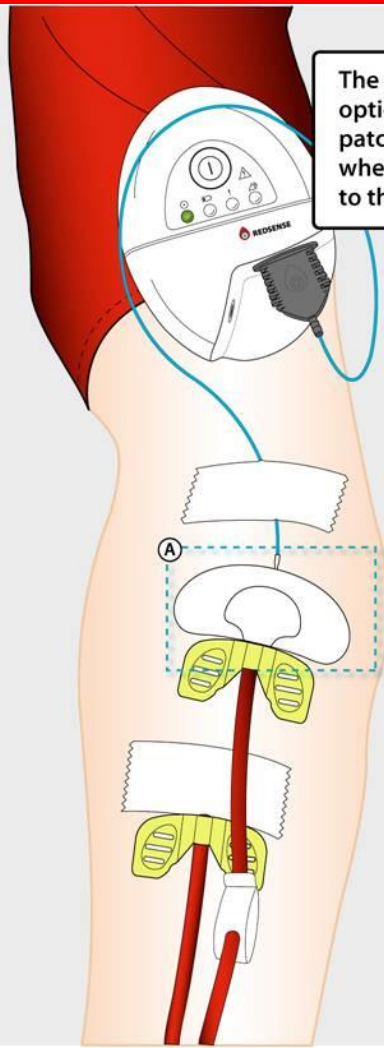
**Dr. Christopher R. Blagg, Professor
Emeritus of Medicine,
University of Washington**



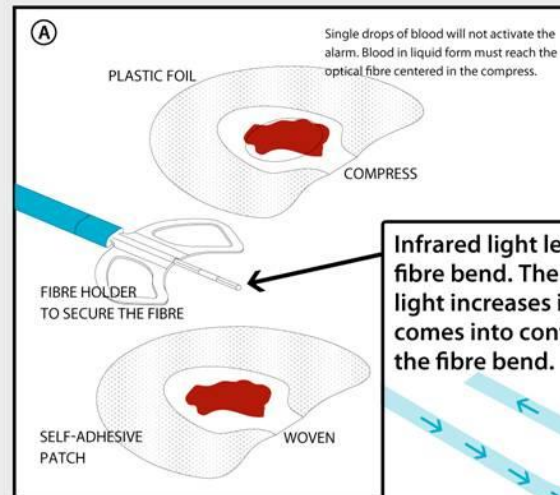
The Redsense Device



How it works

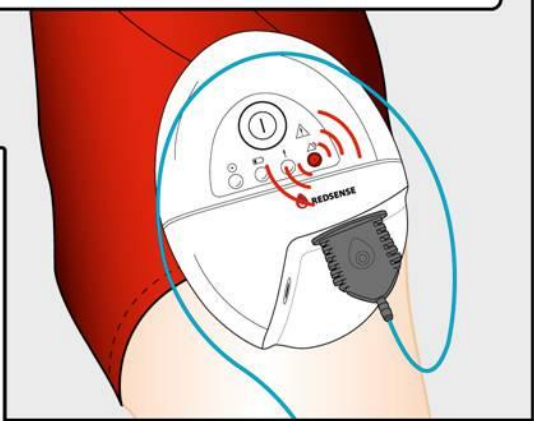


The alarm unit sends infrared light through the optical fibre, to the sensor patch. The sensor patch is placed directly over the puncture hole where the venous needle returns purified blood to the patient from the dialysis machine.



Infrared light leaks from the fibre bend. The leakage of light increases if blood comes into contact with the fibre bend.

The Alarm unit measures the remaining level of infrared light. If the level of light is drastically reduced, the alarm reacts immediately.



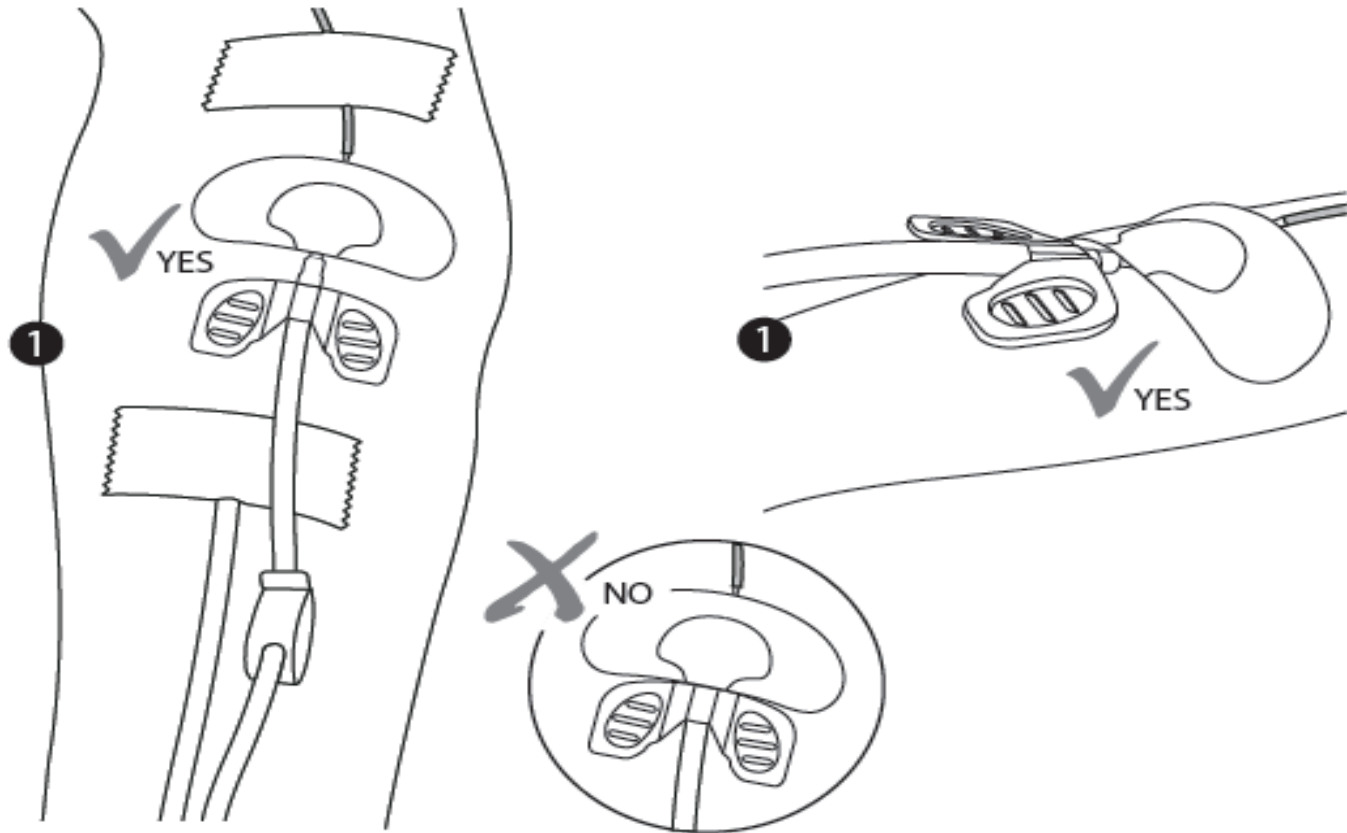
Preparations



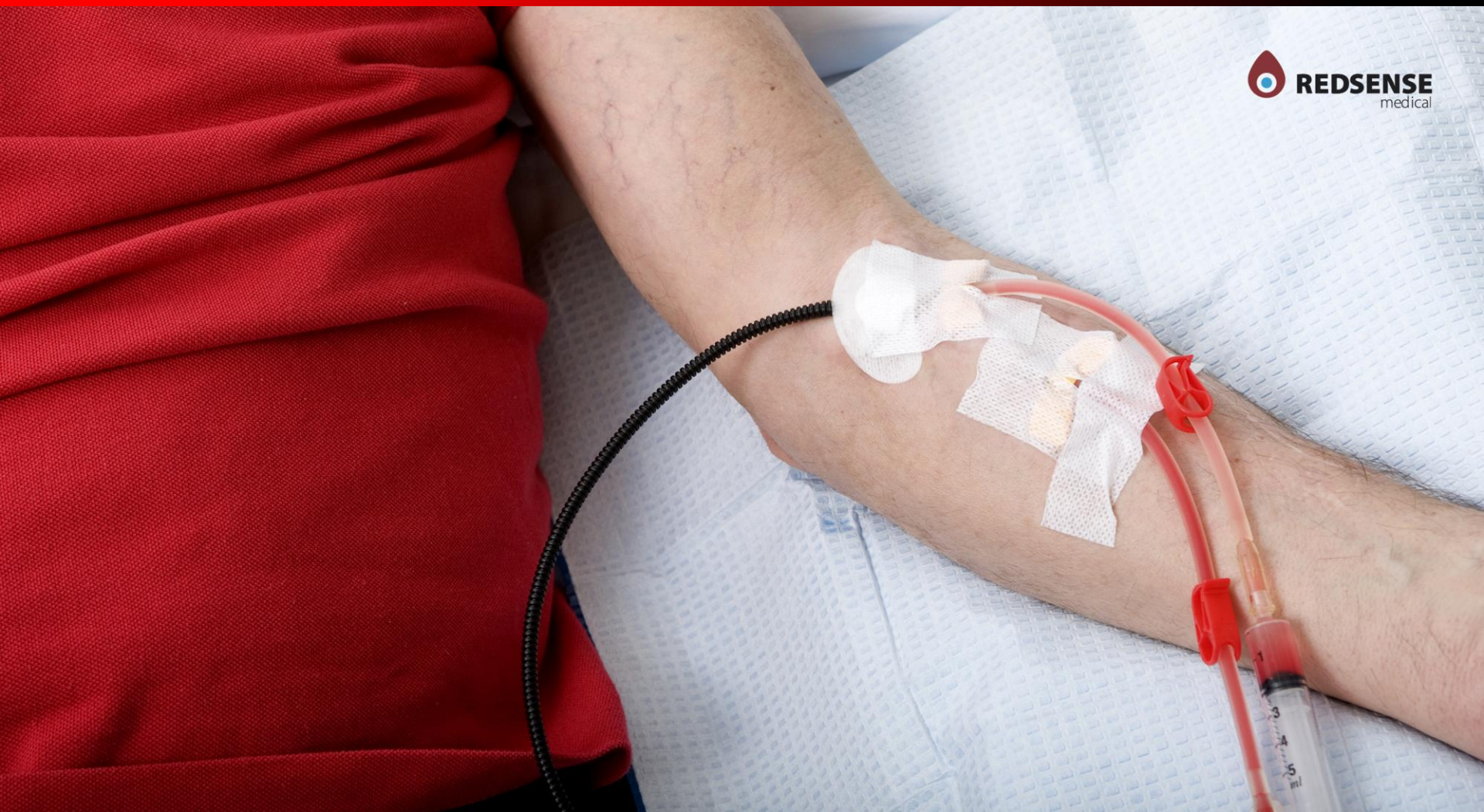
Attach sensor patch



Attach sensor patch II



Secure the dressing



Attach alarm unit



Connect sensor patch to alarm unit



Secure sensor cable



Turn on alarm unit



Start monitoring



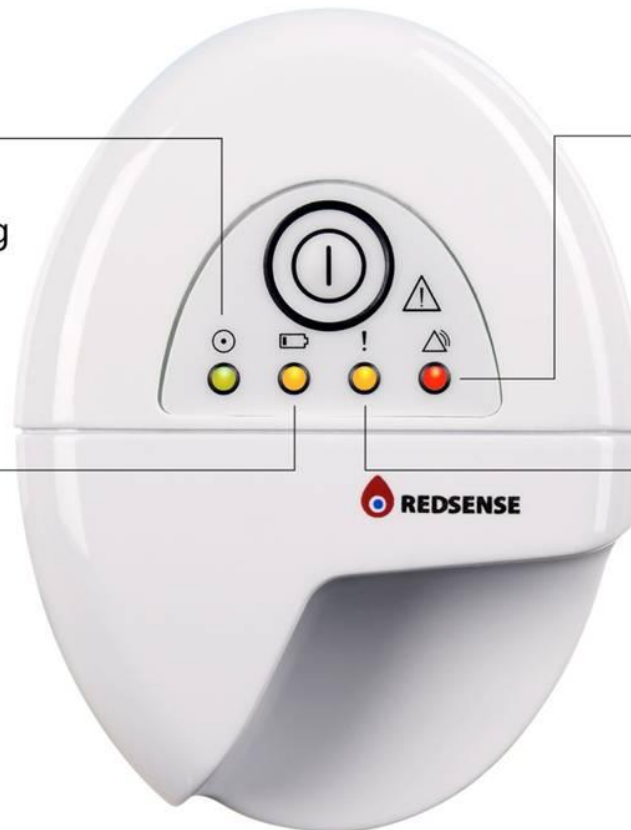
What can happen during dialysis?

Green light

indicates that the monitoring is functioning in the correct way

Yellow light

at the battery warning symbol indicates that the battery needs to be recharged



Red light

and a continuous two-toned alarm signal indicate that blood has dripped onto the sensor either because the needle has been pulled out or there has been a leakage.

Yellow light at the exclamation mark indicates one of the following: Moisture has come into contact with the sensor. The sensor has come loose or broken down.

End of monitoring



Cleaning



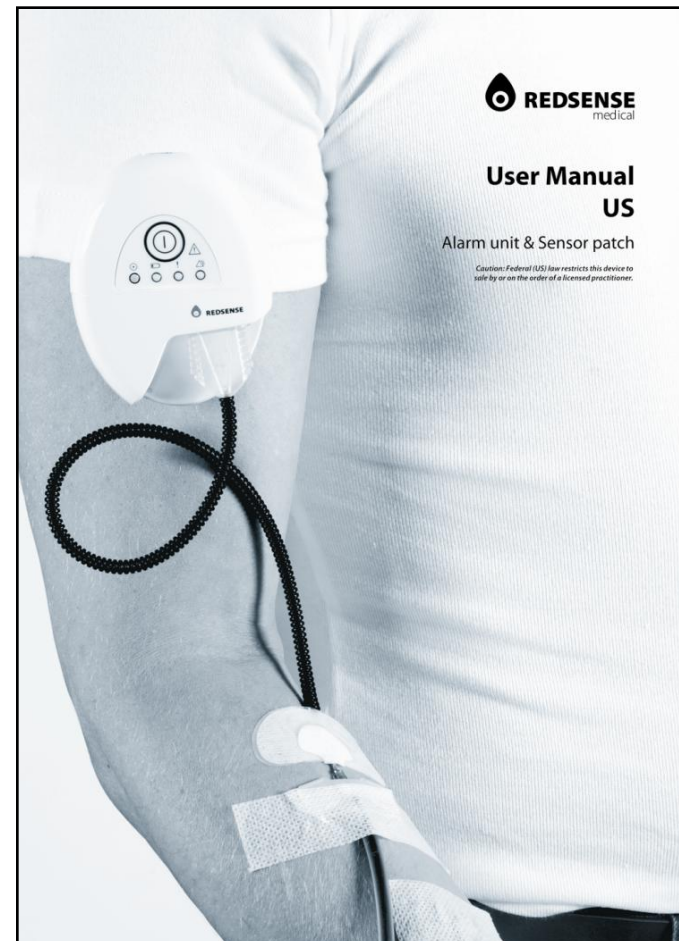
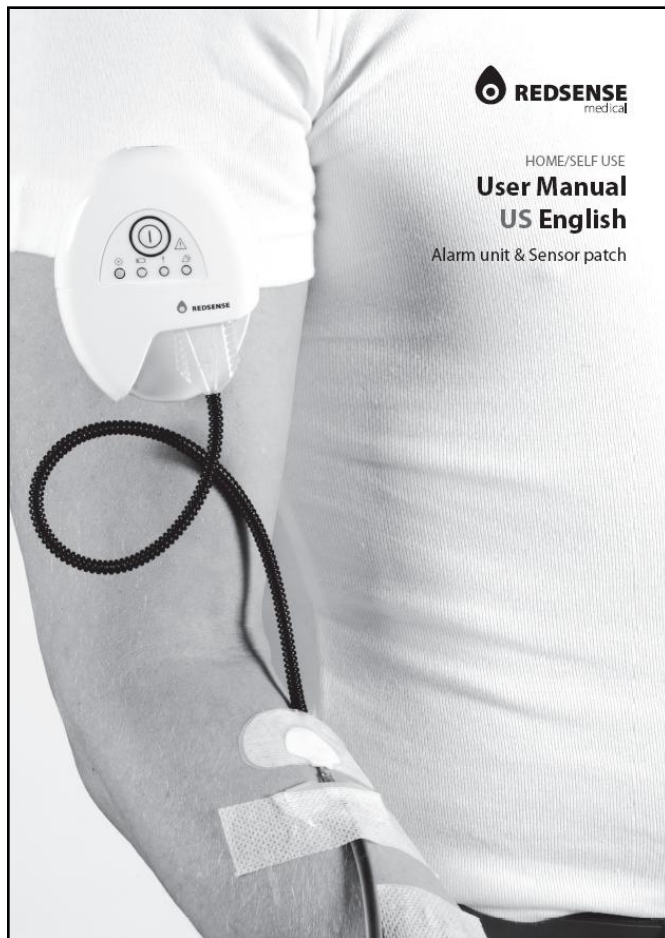
Charging



Important points

- ✓ **The sensor patch must be centered over the puncture site.**
- ✓ **The alarm unit has to be switched on**
- ✓ **Always act on low battery warning**

More information – www.redsensemedical.com



**Questions?
Thanks!**

